Final

Memphis Depot

BRAC Cleanup Team

Meeting Minutes

20 April 2006

BRAC Cleanup Team	**Organization**	**Phone/email**
Michael Dobbs	Defense Logistics Agency (DLA)/Defense Distribution Center (DDC) DES-DDC-EE	717.770.6950
Turpin Ballard	Environmental Protection Agency, Region IV (EPA)	404.562.8553
Evan Spann	Tennessee Department of Environment and Conservation, Division of Remediation (TDEC-DoR)	901.368.7916
Project Team	**Organization**	**Phone**
Jesse Perez	Air Force Center for Environmental Excellence (AFCEE)	210.536.4366
David Price	MACTEC Engineering and Consulting	770.421.7022
Denise Cooper	MACTEC Engineering and Consulting	901.774.3681
Buddy Wagoner	Mobile District Corps of Engineers (CESAM)	251.690.3341
Harold Duck	Mobile District Corps of Engineers	251.690.3298
Bruce Railey	Corps of Engineers – Huntsville (CEHNC)	256.895.1463
Brett Frazer	Corps of Engineers - Huntsville	256.895.1874
David Nelson	CH2M Hill	770.604.9182 x394
Mike Perlmutter	CH2M Hill	770.604.9182 x645
Glen Turney	e^2M	210.348.6000
Angela McMath	e^2M	404.932.6222
Tom Holmes	e^2M	404.237.3982
Kevin Sedlak	e^2M	210.639.9719
John K. Miller	Mitretek Systems	703.610.2560

Previous Meeting Minute Approval

The BCT approved and signed the minutes from the 15 February 2006 meeting.

Dunn Field Off-Depot Zero-Valent Iron (ZVI) Permeable Reactive Barrier (PRB) Field Trial

Mr. Nelson reported that the final ZVI PRB Work Plan was posted 18 April 2006 on CH2M Hill's FTP site and that the compact discs had been shipped. He then reviewed the work plan and addressed several of the regulators' comments.

Mr. Nelson went on to describe that two test columns will be installed as the first phase of the field trial. Mr. Ballard asked why concrete would be used for one of the test columns. Mr. Perlmutter explained that concrete would be easier to evaluate the geometry of the column, which would be done using test borings after the concrete cured for a couple of days. Mr. Nelson commented that the other test column would be ZVI.

Mr. Nelson reviewed the equipment, such as the vacuum truck, that would be utilized to collect the waste products. He also noted that Hayward Baker, Inc. (HBI) might use water to clean off the drill rig in the work zone without constructing a designated decontamination pad. Neither Mr. Ballard nor Mr. Spann had a concern about this process.

Mr. Nelson reported that the waste water would be tested and, if clean, it would be disposed through the Dunn Field Interim Remedial Action (IRA) discharge system. During the project team meeting on 19 April 2006, Mr. Price notified CH2M Hill that if they intended to discharge water through the IRA system, then they must provide the Public Owned Treatment Works (POTW) administrator with the analytical results and the approximate quantity of waste water to be discharged in a written request for permission to conduct a one-time only slug discharge. The discharge could not occur until permission was received from the POTW and the volumetric reading of the discharge would need to be included in the monthly Effluent and Operations Report.

Mr. Nelson provided samples of sand and pea gravel materials that are being considered by HBI to blend with the ZVI to ensure the ZVI/sand mix would not impede hydraulic conductivity of the aquifer. The course sand-aggregate mixture appears to be the material that will be selected for the pilot study.

Mr. Ballard asked if there was a higher risk of the ZVI to segregate from the course sand-aggregate mixture. Mr. Perlmutter responded that there was a risk, but that CH2M Hill had discussed it with HBI and would be watching very carefully during the test column to ensure that it would not segregate during placement. Mr. Spann asked if the ZVI/sand mix would be dry during placement. Mr. Nelson responded that if HBI used the tremie pipe to place the material, then it would be dry. If segregation or other problems were encountered, then HBI would add some water to the mixture. Once HBI had perfected the mix process, which HBI would be working on upon delivery of the ZVI and sand-aggregate mixture, then CH2M Hill would collect a sample in order to perform a hydraulic conductivity analysis.

Mr. Nelson then provided the schedule of activities for the field trial:

Mobilization: 16 May 2006

Installation of test columns: 19 May 2006

Installation of PRB columns: 22 May 2006

Site restoration and demobilization: 29 May 2006

Confirmation soil boring and install wells within PRB: 5 June 2006

1st confirmatory groundwater sampling event and slug test of study area wells: 12 June 2006

6th and final confirmation sampling event: 18 December 2006

Mr. Ballard asked how the current field trial schedule would dovetail into the schedule for the 60% Off Depot Groundwater Remedial Design (RD). Mr. Nelson responded that CH2M Hill would have enough data from the confirmation sampling events to complete the 60% RD and that the Rev. 1 ZVI PRB Implementation Study Technical Memorandum (TM) would be included in the 90% RD.

Mr. Nelson asked that he be notified if anyone planned to be present during the field trial, so that the site team would be prepared and to ensure compliance with the health and safety plan. He also reported that Memphis Light, Gas and Water had visited the site and had measured the height of the power lines. MLGW may have someone on site during drilling.

Dunn Field Remedial Design Investigation (RDI)

Mr. Nelson reviewed EPA and TDEC comments on the Rev.0 RDI TM. Mr. Ballard asked if the RDI TM would become an appendix to the Source Areas RD. Mr. Nelson responded that it would become an RD appendix. He also mentioned that another version of the RDI TM would be forthcoming to incorporate additional soil sampling data.

Mr. Ballard asked and Mr. Nelson confirmed that regulator comments on the Rev. 0 RDI TM would be incorporated into the appropriate RDs. Mr. Spann commented that since there were data gaps identified in the Rev. 0 RDI TM that were to be resolved during the ZVI PRB field trial, he would like one document for the public to go to for information instead of referring them to the different RDs.

Mr. Nelson indicated that due to a lack of available drill rigs during the ZVI PRB field trial CH2M Hill would not be able to collect the additional soil samples to fill the data gaps identified in the Rev. 0 RDI TM. Therefore, CH2M Hill would be unable to meet the schedule for the Rev. 1 RDI TM. Mr. Nelson asked if the Federal Facilities Agreement required a request for extension for the next revision of the RDI TM. Mr. Ballard indicated that since the RDI TM was a secondary document, then a request for extension where in DLA must show just cause for the delay was not necessary. But, he would like to see a notification of delay in order to schedule his work load.

The BCT agreed that if contractors determined that secondary documents would be delayed, then they would provide a notification of the delay to include the new deliverable date through Mr. Dobbs.

Mr. Nelson continued his review of EPA and TDEC comments and CH2M Hill's responses on the Rev. 0 RDI TM. The team discussed the figure depicting water levels between MW183 and MW43. Mr. Ballard suggested that the figure include an interpretation of what was happening to the water in this location. Mr. Nelson responded that in the past interpretations that were a matter of opinion were not well received by the BCT, and that without any real data to support an interpretation, CH2M Hill did not want to speculate on what was happening to the water at this location. But, he would re-evaluate the figure and try to provide a better diagram of what could be occurring.

AI: CH2M Hill to provide through DLA to EPA and TDEC notification of delay on the Rev. 1 RDI TM as soon as possible.

Dunn Field Source Areas Remedial Design (RD)

Mr. Perlmutter reported on that 19 April 2006 CH2M Hill posted the 60% Source Areas RD on the FTP site and compact discs were shipped. He discussed several aspects of the design based on results of the RDI as well as on regulator comments on the Rev. 0 RDI TM. He described the four treatment areas included in the 60% RD. He reviewed sample results and the data gaps that would be resolved by the samples identified in the ZVI PRB Work Plan.

During last several BCT meetings, the team discussed the question of obtaining 99.999 reduction necessary at certain hot spots to achieve the remedial goals (RGs) by the in-situ thermal desorption (ISTD) and soil vapor extraction (SVE) treatment methods. Mr. Perlmutter reported that there were only two small areas with concentrations that would require treatment efficiencies of 99.999 to achieve RGs. He indicated that the ISTD companies had remained confident that they would be able to meet the RGs, but that it would be a matter of time and energy.

Mr. Ballard asked if there was at this stage of the design a monitoring approach that indicated how long the system would run to achieve the RGs in most areas and then evaluate how much more time would be necessary to achieve RGs at the hot spots. Mr. Perlmutter responded that there was a monitoring approach in the design. He indicated that samples would be collected at different locations and times to evaluate contaminant concentrations and the reductions, because the ISTD companies did not want to turn off the system while awaiting determination that more work was required.

Mr. Dobbs asked about moving forward with the design if the RGs might change because it might be unattainable. Mr. Ballard and Mr. Miller responded that a change in the RGs might not be required and that the decision to change the RGs would not be made until after the initial operation of the remedial action in order to measure the actual system results. Mr. Perlmutter reiterated that theoretically the technology would achieve the RGs, but that it just might require more time and energy to reduce the two small hot spots.

Mr. Perlmutter then described the effluent discharge system and how the system would remove contaminants from the air prior to discharge into the atmosphere. Mr. Ballard suggested that the Source Areas RD public briefing include information on how the system would clean the air being pumped out of the ground prior to release to the atmosphere as it would be a very important point for the public.

Mr. Perlmutter described the sequence of cleaning the loess, then the fluvial aquifer, then moving on to the ZVI injection in the hottest areas of groundwater. Mr. Ballard asked if there are had been a change from treating the groundwater contamination areas out to the 100 ppb contour. Mr. Perlmutter responded that he had taken from team discussions regarding the thermal technologies that the groundwater treatment would focus on the hot spots. During his review of the Source Areas RD, Mr. Ballard would review the Dunn Field Record of Decision (ROD) and previous BCT minutes to ensure the Source Areas RD clearly linked that the treatment would fulfill the ROD requirements.

Mr. Nelson reviewed the STOP decision tree that addressed the decision making process for turning off the Source Areas remedial action systems.

Dunn Field Groundwater Modeling Status

Mr. Nelson reported that the groundwater model would be modified with the Dunn Field RDI data, and that the modelers were reviewing the post-remediation scenario. The modelers must also run the current groundwater concentrations forward to determine where the plume would go. He indicated that the modeling results would be provided in the 60% Off Depot Groundwater RD due to the BCT in June 2006. Mr. Ballard asked if there would be a "no action" scenario, and Mr. Nelson responded that yes, the models would include a "no action" scenario.

Main Installation Remedial Action

Mr. Holmes reported that the pre-construction meeting with EPA and TDEC would be conducted after the BCT meeting. He introduced the geologist, Mr. Sedlak, who would oversee installation of the injection wells. He reported that e^2M planned to mobilize on 1 May 2006, and that they would use Bldg. 265 instead of Bldg. 309 as the lactate storage/transfer facility. Mr. Holmes anticipated completing the injection wells in August 2006 and beginning injections in September 2006. He confirmed for Mr. Dobbs that mobilization on 1 May 2006 was ahead of the scheduled date of 24 May 2006.

Dunn Field Property Transfer Status

Mr. Duck reported that the deed for the Finding of Suitability to Transfer (FOST) 3 property going to the Depot Redevelopment Corporation (DRC) through an economic development conveyance was at the Department of Army's (DA) Office of General Counsel and should be signed soon.

The deed had been signed for the FOST 4 property going to the City of Memphis for the Hays Road expansion project. The FOST 4 area slated for the public park had been transferred from the DA to the Department of Interior (DOI), who sent the deed to the City. However, the City sent the deed back to DOI saying the City had too much public property and would not accept the transfer. So, DOI returned the property to the DA, which was considering offering the property for public sale. Since then the DRC offered to amend their economic development conveyance application to include all of the Dunn Field property, but the DA had not made a decision regarding that offer as yet.

Dunn Field Groundwater Interim Remedial Action (IRA) System Status

Mr. Price reported that the IRA system was fully operational. He reported that operations and maintenance had been performed on the system during the past month. MACTEC installed a new pump in RW-7, repaired and recalibrated the flow meters, downloaded the transducers, reprogrammed the controllers and made electrical repairs to recovery wells RW-7 and RW-8. Mr. Price commented that sometime between 7 February and 17 February 2006, someone had replaced some of the piping in 9 out of 11 recovery well enclosures. They did not reconfigure the piping design, but they replaced some piping. He reported that there was no damage to the recovery well piping system, but that some of the recovery well enclosure doors had been forced open.

Mr. Price expounded on the pump replacement at RW-7. During the O&M visit on 27 February 2006, the technician observed that the RW-7 control panel had been left open and the control switch was in the 'ON' position. MACTEC tried to restart the pump, but was unable to. A new pump was ordered and subsequently installed on 28 March 2006. The pump operated but was

still not functioning properly. The electrical technician made the necessary repairs to the RW-7 pump on 14 April 2006 and it has maintained normal operation since then.

Mr. Spann asked if MACTEC was still pursuing the IRA optimization project. Mr. Price responded that the POTW was unwilling to change the discharge permit levels at this point. Mr. Spann said the TDEC Division of Water Pollution Control could help, but that they did not want to force the POTW into anything. Mr. Dobbs indicated that they would not pursue trying to optimize the system any further.

Mr. Ballard interjected that the Interim ROD allowed for treatment prior to discharge and suggested that Mr. Dobbs may want to consider it if it reduced the overall operating costs. Mr. Dobbs indicated the liability to protect additional equipment at Dunn Field was more than he wanted to incur at this time.

Dunn Field Disposal Sites Remedial Action

Mr. Price reported that the excavation of Sites 4.1, 10, 3, 13 and 31 was completed. The field crew demobilized on 8 March 2006. He anticipated receipt of the disposal manifests the week of 17 April 2006. The Remedial Action Completion Report was being prepared, and Mr. Price anticipated it would be submitted for BCT review on 2 May 2006. He indicated that air monitoring performed during the remedial activities associated with Disposal Site 3 did not indicate the presence of emissions above established action levels.

Community Involvement

Mr. Price distributed the RAB meeting agenda and discussed what would occur.

Schedule Review

Mr. Price distributed the deliverables matrix and reviewed the information. Regarding TDEC comments on the Rev. 0 BRAC Cleanup Plan Version 9, Mr. Spann agreed to provide Mr. Dobbs with written notification that TDEC had no comments.

The team agreed that if contractors determined a delay for secondary documents, then they would provide notification of the delay to include the new deliverable date through Mr. Dobbs.

Depot Redevelopment Corporation (DRC) Issues

Mr. Price reported that the DRC had requested information about moving MW62. The tenant in Bldg. 835 was planning to expand the building and had requested information about the cost and possibility of moving that well. Mr. Price indicated that it was an important monitoring well for TCE monitoring. The BCT agreed to work the DRC's tenant, but wanted more information about the footprint of the expansion, if indeed the tenant was to move forward with the project, in order to make a decision about the location of a new well in that area. Mr. Price would work with the DRC to obtain the information and would propose a new well location.

Mr. Dobbs reported that the DRC asked about the possibility of an early transfer of some of the property slated for FOST 5. Mr. Dobbs indicated to the DRC that it was a possibility, but that it would be a "dirty" transfer because of the groundwater contamination beneath that area. Mr. Duck asked when the FOST for that area would be completed. Mr. Holmes responded it was scheduled to be completed in 2008 depending upon receipt of Operating Properly and Successfully on the Main Installation Remedial action from EPA. Mr. Wagoner indicated the

transfer would still require a Finding of Suitability for Early Transfer (FOSET). Mr. Ballard indicated that the FOSET process could sometimes be lengthy.

Wabash Avenue Investigation

Mr. Spann reported that the results of the monitoring wells installed by TDEC up gradient of the northwest corner of Dunn Field indicated a north to south flow in that area. Therefore, the companies TDEC was investigating were not the source of contamination moving on to Dunn Field. Mr. Spann continued that EPA had asked TDEC to write a Site Investigation report in order to close the investigation. Then TDEC would open another investigation of the companies in the N. McLean Circle. He did not have a timetable for the new investigation.

Next Meeting

The BCT agreed not to meet in May. They agreed to schedule the next meeting to coincide with the 60% Source Areas RD on-board review in June.

SIGNED 27 April 2006
MICHAEL DOBBS DATE
Defense Distribution Center
BRAC Environmental Coordinator
BRAC Cleanup Team Member

SIGNED 27 April 2006
TURPIN BALLARD DATE
Environmental Protection Agency
Federal Facilities Branch
Remedial Project Manager
BRAC Cleanup Team Member

SIGNED 27 April 2006
EVAN SPANN DATE
Tennessee Department of Environment and Conservation
Memphis Field Office
Division of Remediation
BRAC Cleanup Team Member